

Serial No. 10/725,877
June 3, 2005
Reply to the Office Action dated March 4, 2005
Page 2 of 9

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (canceled).

Claim 2 (currently amended): A duplexer according to claim 49, wherein the trap circuit includes at least one open stub corresponding to a harmonic to be suppressed.

Claim 3 (canceled).

Claim 4 (currently amended): A duplexer according to claim 32, wherein, in a passband of the transmitting filter and the receiving filter, the open stub is capacitive and the combined reactance of the open stub and the parallel inductor is capacitive.

Claim 5 (currently amended): A duplexer according to claim 39, wherein the parallel inductor has a Q factor of at least about 20.

Claim 6 (currently amended): A duplexer according to claim 49, wherein the matching circuit includes a first parallel capacitor connected to the antenna terminal, a series inductor, and a second parallel capacitor, and the first parallel capacitor includes the trap circuit.

Claim 7 (canceled).

Serial No. 10/725,877
June 3, 2005
Reply to the Office Action dated March 4, 2005
Page 3 of 9

Claim 8 (currently amended): A duplexer according to claim 7~~9~~, wherein the trap circuit is provided in the multi-layer substrate.

Claim 9 (currently amended): ~~A duplexer according to claim 7, wherein A~~
duplexer comprising:

a transmitting filter and a receiving filter which are connected in parallel to an antenna terminal; and

a matching circuit provided between the antenna terminal and at least one of the transmitting filter and the receiving filter,

at least one package for housing at least one of the transmitting filter and the receiving filter; and

a multi-layer substrate having the package and a portion of the matching circuit mounted thereon; wherein

a portion of the matching circuit defines a trap circuit for harmonic suppression;
the matching circuit includes a parallel inductor connected between the antenna terminal and a ground; and

the parallel inductor of the matching circuit includes a chip coil.

Claim 10 (canceled).

Claim 11 (currently amended): A duplexer according to claim 1~~15~~, further comprising a package for housing the transmitting filter and the receiving filter, wherein the package also houses the matching circuit.

Claim 12 (canceled).

Claim 13 (currently amended): A duplexer according to claim 4~~9~~, wherein each of the transmitting filter and the receiving filter includes a surface acoustic wave filter.

Serial No. 10/725,877
June 3, 2005
Reply to the Office Action dated March 4, 2005
Page 4 of 9

Claim 14 (currently amended): A duplexer according to claim 49, wherein the transmitting filter includes a ladder-type SAW filter having a first series SAW resonator connected to the antenna side.

Claim 15 (currently amended): ~~A duplexer according to claim 3, wherein A~~
duplexer comprising:

a transmitting filter and a receiving filter which are connected in parallel to an antenna terminal; and

a matching circuit provided between the antenna terminal and at least one of the transmitting filter and the receiving filter; wherein

a portion of the matching circuit defines a trap circuit for harmonic suppression;
the trap circuit includes at least one open stub corresponding to a harmonic to be suppressed;

the matching circuit includes a parallel inductor connected between the antenna terminal and a ground; and

the parallel inductor is a wound-type chip coil.

Claim 16 (original): A duplexer according to claim 14, wherein the ladder-type SAW filter is a T-shaped ladder SAW filter.

Claim 17 (currently amended): A communication apparatus comprising the duplexer according to claim 49.

Claim 18 (new): A duplexer according to claim 15, wherein each of the transmitting filter and the receiving filter includes a surface acoustic wave filter.

Serial No. 10/725,877
June 3, 2005
Reply to the Office Action dated March 4, 2005
Page 5 of 9

Claim 19 (new): A duplexer according to claim 15, wherein the transmitting filter includes a ladder-type SAW filter having a first series SAW resonator connected to the antenna side.

Claim 20 (new): A communication apparatus comprising the duplexer according to claim 15.

Claim 21 (new): A duplexer according to claim 19, wherein the ladder-type SAW filter is a T-shaped ladder SAW filter.

Claim 22 (new): A duplexer according to claim 15, wherein the parallel inductor has a Q factor of at least about 20.

Claim 23 (new): A duplexer according to claim 15, wherein, in a passband of the transmitting filter and the receiving filter, the open stub is capacitive and the combined reactance of the open stub and the parallel inductor is capacitive.